AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of transmitting an encoded sequence over a network to a terminal, comprising:

storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression;

transmitting a current one of said versions;

ascertaining [[a]]the data transmission rate permitted by the network;

ascertaining the ~~current contents~~content state of a receiving buffer at the terminal;

for at least one candidate version, computing, in respect of ~~at least~~ one or more discrete portions thereof as yet unsent, the maximum timing error ~~of one or more portions starting with that portion if said one or more portions are sent at the currently ascertained data transmission rate~~value as the maximum of a set of computed timing error values for any number of portions starting with said discrete portion up to and including any particular portion if sent at the currently ascertained data transmission rate;

comparing the ~~determined~~computed maximum timing error values of each said at least one candidate version with the ability of the receiving buffer to accommodate the respective maximum timing error values given the ascertained ~~current contents of the receiving buffer~~buffer content state;

selecting one of said ~~candidate~~ versions for transmission, in dependence on the results of said comparisons; and

transmitting the selected version,

wherein ~~the~~a computed timing error ~~of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer~~value for a portion up to and including the particular portion when sent at a said data transmission rate is the difference between (a) the time needed to transmit at the said data transmission rate, the said portion for which the timing error is being computed and zero or more consecutive subsequent portions up to and including the said particular portion, and (b) the difference between the playing instant of the said particular portion and the playing instant of the portion preceding the said portion for which the timing error value is being computed.

2. (Currently Amended) A method of transmitting an encoded sequence over a network to a terminal, comprising:

storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression;

for each version and for each of a plurality of nominal ~~transmitting~~data transmission rates, computing in respect of ~~at least one~~one or more discrete portions thereof the maximum timing error ~~that would occur were any number of portions starting with that portion to be sent at the respective nominal rate~~value as the maximum of a set of computed timing error values for

any number of portions starting with the said discrete portion up to and including any particular portion if sent at a said nominal data transmission rate;

storing said maximum timing error values;

transmitting a current one of said versions;

ascertaining a data transmission rate permitted by the network;

ascertaining the ~~current contents~~content state of a receiving buffer at the terminal;

for at least one candidate version, using the ascertained permitted data transmission rate and the stored maximum timing error values to estimate a respective maximum timing error value corresponding to said ascertained ~~permitted data transmission rate~~data transmission rate;

comparing the estimated maximum timing error values of each said at least one candidate version with the ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained ~~current contents of the receiving buffer~~buffer content state;

selecting one of said candidate versions for transmission, in dependence on the results of said comparisons; and

transmitting the selected version,

wherein ~~the timing error of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer~~ a computed timing error value for a portion up to and including the particular portion when sent at a said data transmission rate is the difference between (a) the time needed to transmit at the said data transmission rate, the said portion for which the timing error is being computed and zero or more consecutive subsequent portions up to and including the said

particular portion, and (b) the difference between the playing instant of the said particular portion and the playing instant of the portion preceding the said portion for which the timing error value is being computed.

3. (Currently Amended) A method according to claim 1, in which said maximum timing error ~~determination~~value calculation is performed only for selected ones of said portions at which a version change is to be permitted.

4. (Canceled)

5. (Currently Amended) A method according to claim 1, in which the sequence is a video sequence.

6. (Currently Amended) A method according to claim 1, in which the sequence is an audio sequence.

7. (Currently Amended) A storage medium for storing a video recording comprising:

a plurality of encoded versions of the same video sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression; and

for each discrete portion of each version and for each of a plurality of nominal ~~transmitting~~data transmission rates, a maximum ~~value of current buffer fullness for that portion,~~

~~being the maximum of (a) the value needed to avoid buffer underflow that would occur were that portion to be sent at the respective nominal rate to a receiving buffer; and~~

~~(b) the values needed to avoid buffer underflow that would occur were that portion and any number of subsequent portions subsequent thereto to be sent at the respective nominal rate;~~

~~wherein the timing error of a discrete portion of a version is the difference between the time needed to transmit the discrete portion at the respective nominal transmitting data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer~~ timing error value for a said discrete portion, being the maximum of a set of timing error values for any number of portions starting with the said discrete portion up to and including any particular portion if sent at a said nominal data transmission rate,

wherein a timing error value for a portion up to and including the particular portion when sent at a said data transmission rate is the difference between (a) the time needed to transmit at the said data transmission rate, the said portion for which the timing error is being computed and zero or more consecutive subsequent portions up to and including the said particular portion, and (b) the difference between the playing instant of the said particular portion and the playing instant of the portion preceding the said portion for which the timing error value is being computed.

8. (Currently Amended) A storage medium for storing an audio recording comprising:

a plurality of encoded versions of the same audio sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression; and

for each discrete portion of each version and for each of a plurality of nominal ~~transmitting rates, a maximum value of current buffer fullness for that portion, being the maximum of (a) the value needed to avoid buffer underflow that would occur were that portion to be sent at the respective nominal rate to a receiving buffer; and~~

~~(b) the values needed to avoid buffer underflow that would occur were that portion and any number of subsequent portions subsequent thereto to be sent at the respective nominal rate, wherein the timing error of a discrete portion of a version is the difference between the time needed to transmit the discrete portion at the respective nominal transmitting data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer~~data transmission rates, a maximum timing error value for a said discrete portion, being the maximum of a set of timing error values for any number of portions starting with the said discrete portion up to and including any particular portion if sent at a said nominal data transmission rate,

wherein a timing error value for a portion up to and including the particular portion when sent at a said data transmission rate is the difference between (a) the time needed to transmit at the said data transmission rate, the said portion for which the timing error is being computed and zero or more consecutive subsequent portions up to and including the said particular portion, and (b) the difference between the playing instant of the said particular portion and the playing instant of the portion preceding the said portion for which the timing error value is being computed.

9. (Currently Amended) An apparatus for transmitting an encoded sequence over a network to a terminal, comprising:

a store storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression;

a transmitter; and

control means operable to receive data as to [[a]]the data rate permitted by the network and data as to the ~~state of fullness contents~~content state of a receiving buffer at the terminal and, for at least one candidate version, to compute in respect of ~~at least one~~one or more discrete portions thereof as yet unsent the maximum timing error ~~value of current buffer fullness that would be needed to avoid buffer underflow were any number of portions starting with that portion to be sent at the permitted rate, to compare the determined maximum needed buffer fullness values with the ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained current contents of the receiving buffer fullness and to select one of said versions for transmission, in dependence on the results of said comparisons, wherein the timing error of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer~~value of a set of timing error values for any number of portions starting with the said discrete portion up to and including any particular portion if sent at the permitted data transmission rate, to compare the determined maximum timing error value with the ability of the receiving buffer to accommodate said maximum timing error value with its buffer content state and to select one of said versions for transmission, in dependence on the results of said comparisons,

wherein a computed timing error value for a portion up to and including the particular portion when sent at a said data transmission rate is the difference between (a) the time needed to transmit at the said data transmission rate, the said portion for which the timing error is being computed and zero or more consecutive subsequent portions up to and including the said particular portion, and (b) the difference between the playing instant of the said particular portion and the playing instant of the portion preceding the said portion for which the timing error value is being computed.

10. (Currently Amended) An apparatus for transmitting an encoded sequence over a network to a terminal, comprising:

a store storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression, each version including, for each of a plurality of nominal ~~transmitting~~data transmission rates, in respect of ~~at least one~~one or more discrete portions thereof, the maximum timing error value ~~of current buffer fullness that would be needed to avoid receiver buffer underflow at the terminal were any number of portions starting with that portion to be sent at the respective nominal rate~~ of a set of timing error values for any number of portions starting with the said discrete portion up to and including any particular portion if sent at a said nominal data transmission rate;

a transmitter; and

control means for receiving data as to [[a]]the data transmission rate permitted by the network and data as to the content state ~~of fullness current contents~~ of a receiving buffer at the terminal and, for at least one candidate version, to use the permitted data rate and the stored

maximum ~~needed buffer fullness values to estimate a respective maximum needed buffer fullness value corresponding to said permitted data rate, to compare the estimated maximum needed buffer fullness value(s) with ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained current contents of the receiving buffer fullness state and to select one of said versions for transmission, in dependence on the results of said comparisons~~timing error values to estimate a respective maximum timing error value corresponding to said permitted data rate, to compare the estimated maximum timing error values with the ability of the receiving buffer to accommodate each said estimated maximum timing error with its buffer content state and to select one of said versions for transmission, in dependence on the results of said comparisons,

~~wherein the timing error of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer~~wherein a computed timing error value for a portion up to and including the particular portion when sent at a said data transmission rate is the difference between (a) the time needed to transmit at the said data transmission rate, the said portion for which the timing error is being computed and zero or more consecutive subsequent portions up to and including the said particular portion, and (b) the difference between the playing instant of the said particular portion and the playing instant of the portion preceding the said portion for which the timing error value is being computed.

11. (Previously Presented) A method according to claim 1, wherein a discrete data portion comprises a data packet.

12. (Previously Presented) A method according to claim 1, wherein a discrete data portion comprises a data packet and wherein a said packet has one or more pre-calculated maximum timing errors stored in it.

13. (Currently Amended) A method according to claim [[4]]1, in which said maximum timing error determination is performed only for selected ones of said portions at which a version change is to be permitted.

14. (Currently Amended) A method according to claim [[4]]1, in which the sequence is a video sequence.

15. (Currently Amended) A method according to claim [[4]]1, in which the sequence is an audio sequence.

16. (Currently Amended) A method according to claim [[4]]1, wherein a discrete data portion comprises a data packet.

17. (Currently Amended) A method according to claim [[4]]1, wherein a discrete data portion comprises a data packet and wherein a said packet has one or more pre-calculated maximum timing errors stored in it.